Author Index of Volume 171

Adler, T.A., 215

Bastias, P.C., 169
Batchelor, A.W., 135
Beloenko, E.D., 7
Bhushan, B., 25, 179
Biswas, S.K., 115
Blomberg, A., 77
Bobrysheva, S.N., 7
Bulatov, V.P., 71

Celis, J.P., 91
Chakraverti, G., 51

De Bonte, M., 91
Debuyck, F., 99, 109

Ermakov, S.F., 7

Fang, L., 129
Fukahori, Y., 195

Gamulya, G.D., 143
Gangadhar, A., 1
Gao, Y., 129
Ginzburg, B.M., 71
Goretta, K.C., 211
Griffiths, L.J., 135
Gupta, V., 169

Hahn, G.T., 169
Hinteregger, H.F., 179
Hogmark, S., 77
Horng, J.H., 59
Hsu, C.-H., 227

Jiang, J., 163
Ju, S.-M., 41

Kozyrev, Yu.P., 71
Kupchinov, B.I., 7

Lebedeva, I.L., 143
Lee, R.-T., 227
Lee, T.S., 211
Leng, X., 169
Li, P., 129
Lin, J.F., 59
Liu, H., 163

Ma, A., 163
Madsen, B.W., 215
Mao, Z.Y., 239
Mayer, A., 211
Murthy, K.S.S., 115

Olsson, M., 77

Pensaert, S., 99, 109
Philip, P.K., 1
Pramila Bai, B.N., 33, 115
Priemskii, N.D., 71

Ravikiran, A., 33
Rodnenkov, V.G., 7
Rogers, A.E.E., 179
Roos, J.R., 91
Routbort, J.L., 211
Roy, M., 149
Rubin, C.A., 169

Schwarz, R.B., 211
Shunmugam, M.S., 1
Somi Reddy, A., 115
Soni, J.S., 51
Stachowiak, G.W., 135
Stolarski, T.A., 203
Sundararajan, G., 149

Tan, R., 163
Tiainen, T.J., 211
Tochilnikov, D.G., 71

Van Peteghem, A., 99, 109
Venkatesan, S., 25
Vishwanathan, B., 149
Vvedensky, Yu.V., 143

Wang, D.F., 239
Wang, W., 19
Wen, S., 19
Weng, C.-I., 41

Xue, Q., 13

Yamazaki, H., 195
Yang, D., 13
Ye, X., 91
Yukhno, T.P., 143

Zhang, X., 13
Zhou, L., 129

Subject Index of Volume 171

Abrasion
a new method of evaluating the abrasion resistance of wires. Part II: Theoretical model on the wear rate and experimental work on coated and uncoated wires, 109
mechanism of rubber abrasion. Part I: Abrasion pattern formation in natural rubber vulcanizate, 195
Abrasion resistance
a new method of evaluating the abrasion resistance of wires. Part I: Presentation of the device and mathematical background, 99
Adhesive wear
in situ observation and study of the unlubricated wear process, 19
Alloys
solid particle erosion of heat-treated $Ni_{80}P_{20}$, 211
Al–Si alloys
wear and seizure of binary Al–Si alloys, 115
Alumina
water-lubricated sliding of Al_2O_3 against steel, 33
Alumina–aluminosilicate
the wear properties of an alumina–aluminosilicate fibre hybrid reinforced Al–Si alloy in a lubricated condition, 163
Aluminium oxide
wear mechanisms and tribo mapping of Al_2O_3 and SiC in dry sliding, 77

Ceramic coatings
characterization by transmission electron microscopy of debris formed on plasma spray and hard PVD ceramic coatings, 91
Ceramics
unlubricated sliding wear of ceramics against graphitized cast irons, 129
SEM studies of material damage to silicon carbide ceramics by erosive wear and static indentation, 239
Coatings
analysis of the tribological behaviour and wear mechanisms of titanium nitride coating, 59
Composites
the solid particle erosion of polymer matrix composites, 149
Contacts
express investigations of wear processes by means of cylindrical counterbodies. Part I: Calculations and technique, 71

Edge guiding
thermal considerations for the edge guiding of thin magnetic tape in a longitudinal tape transport, 179
Electrodischarge machining
improvement of wear resistance by EDM with tungsten carbide P/M electrode, 1
Energy loss
analysis of the resistance to motion in a sliding contact, 203
Erosion
the solid particle erosion of polymer matrix composites, 149
solid particle erosion of heat-treated $Ni_{80}P_{20}$, 211
SEM studies of material damage to silicon carbide ceramics by erosive wear and static indentation, 239

Fe–Al alloys
passivation and repassivation kinetics of iron-aluminum alloys in 1 N H_2SO_4 using potential step and scratch tests, 215
Fretting
fretting wear behaviour of 2Cr13 stainless steel before and after laser treatment, 13
Friction
wear mechanisms and tribo mapping of Al_2O_3 and SiC in dry sliding, 77
friction and wear changes in synovial joints, 135
secondary structure formation and wear mechanisms for solid lubricant coatings under friction in vacuum, 143
analysis of the resistance to motion in a sliding contact, 203

Human joints
the effect of liquid crystals on joint lubrication, 7

In situ observation
in situ observation and study of the unlubricated wear process, 19
Iron
unlubricated sliding wear of ceramics against graphitized cast irons, 129

Journal bearings
thermohydrodynamic analysis of finite-width journal bearings with non-Newtonian lubricants, 41

Laser treatment
fretting wear behaviour of 2Cr13 stainless steel before and after laser treatment, 13
Liquid crystals
the effect of liquid crystals on joint lubrication, 7
Lubricants
thermohydrodynamic analysis of finite-width journal bearings with non-Newtonian lubricants, 41
secondary structure formation and wear mechanisms for solid lubricant coatings under friction in vacuum, 143
Lubrication
the effect of liquid crystals on joint lubrication, 7
the wear properties of an alumina–aluminosilicate fibre hybrid reinforced Al–Si alloy in a lubricated condition, 163
advanced multilevel solution for thermal elastohydrodynamic lubrication of simple sliding line contacts, 227

Machining
improvement of wear resistance by EDM with tungsten carbide P/M electrode, 1
Magnetic tape
thermal considerations for the edge guiding of thin magnetic tape in a longitudinal tape transport, 179

Metal matrix composite
the wear properties of an alumina–aluminosilicate fibre hybrid reinforced Al–Si alloy in a lubricated condition, 163

Particle erosion
solid particle erosion of heat-treated $Ni_{80}P_{20}$, 211
Passivation
passivation and repassivation kinetics of iron-aluminum alloys in 1 N H_2SO_4 using potential step and scratch tests, 215
Plasma spraying
characterization by transmission electron microscopy of debris formed on plasma spray and hard PVD ceramic coatings, 91
Polymers
the solid particle erosion of polymer matrix composites, 149

Real contact area
in situ observation and study of the unlubricated wear process, 19
Rolling contact
analysis of rolling contact spall life in 440C bearing steel, 169
Rotary electro-discharge machining
machining characteristics of titanium with rotary electro-discharge machining, 51
Rubber
mechanism of rubber abrasion. Part I: Abrasion pattern formation in natural rubber vulcanizate, 195

Scanning electron microscopy
SEM studies of material damage to silicon carbide ceramics by erosive wear and static indentation, 239
Scratch test
passivation and repassivation kinetics of iron-aluminum alloys in 1 N H_2SO_4 using potential step and scratch tests, 215
Secondary structure formation
secondary structure formation and wear mechanisms for solid lubricant coatings under friction in vacuum, 143
Seizure
wear and seizure of binary Al–Si alloys, 115
Silicon
the sliding friction and wear behavior of single-crystal, polycrystalline and oxidized silicon, 25
Sliding
water-lubricated sliding of Al_2O_3 against steel, 33
wear mechanisms and tribo mapping of Al_2O_3 and SiC in dry sliding, 77
Sliding contact
analysis of the resistance to motion in a sliding contact, 203

Sliding friction
the sliding friction and wear behavior of single-crystal, polycrystalline and oxidized silicon, 25
Sliding line contacts
advanced multilevel solution for thermal elastohydrodynamic lubrication of simple sliding line contacts, 227
Sliding wear
unlubricated sliding wear of ceramics against graphitized cast irons, 129
Spall life
analysis of rolling contact spall life in 440C bearing steel, 169
Stainless steel
fretting wear behaviour of 2Cr13 stainless steel before and after laser treatment, 13
Static indentation
SEM studies of material damage to silicon carbide ceramics by erosive wear and static indentation, 239
Steels
water-lubricated sliding of Al_2O_3 against steel, 33
analysis of rolling contact spall life in 440C bearing steel, 169
Synovial joints
friction and wear changes in synovial joints, 135

Thermohydrodynamics
thermohydrodynamic analysis of finite-width journal bearings with non-Newtonian lubricants, 41
Titanium
machining characteristics of titanium with rotary electro-discharge machining, 51
Titanium nitride
analysis of the tribological behaviour and wear mechanisms of titanium nitride coating, 59
Transitional wear area
in situ observation and study of the unlubricated wear process, 19
Transmission electron microscopy
characterization by transmission electron microscopy of debris formed on plasma spray and hard PVD ceramic coatings, 91

Unlubricated wear
in situ observation and study of the unlubricated wear process, 19

Wear
wear and seizure of binary Al–Si alloys, 115
Wear groove
express investigations of wear processes by means of cylindrical counterbodies. Part I: Calculations and technique, 71
Wires
a new method of evaluating the abrasion resistance of wires. Part I: Presentation of the device and mathematical background, 99
a new method of evaluating the abrasion resistance of wires. Part II: Theoretical model on the wear rate and experimental work on coated and uncoated wires, 109